

**CENTRAL ELECTRICITY REGULATORY COMMISSION
NEW DELHI**

Petition No. 48/TT/2014

Coram:

**Shri A.S.Bakshi, Member
Dr. M.K. Iyer, Member**

**Date of Hearing : 27.01.2016
Date of Order : 18.03.2016**

In the matter of:

Determination of transmission tariff for 2009-14 tariff period under Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2009 for assets under "Transmission System for Phase-I Generation Projects in Orissa-Part B" in Western Region, under Regulation 86 of Central Electricity Regulatory Commission (Conduct of Business) Regulations, 1999.

And in the matter of:

Power Grid Corporation of India Ltd.
'SAUDAMINI', Plot No-2,
Sector-29, Gurgaon -122 001 (Haryana).

.....**Petitioner**

Versus

1. Madhya Pradesh Power Management Company Limited
Shakti Bhawan, Rampur
Jabalpur -482 008
2. Maharashtra State Electricity Distribution Co. Limited
4th Floor, Prakashgad, Plot no. 9,
Andheri (East),
Mumbai - 400 052
3. Gujarat UrjaVikas Nigam Limited
Sardar Patel VidyutBhawan,
Race Course Road, Vadodara - 390 007
4. Electricity Department
Govt. of Goa



VidyutBhawan, Panaji,
Near Mandvi Hotel, Goa – 403 001

5. Electricity Department
Administration of Daman & Diu
Daman – 396 210
6. Electricity Department
Administration of Dadra Nagar Haveli,
U.T., Silvassa – 396 230
7. Chhattisgarh State Electricity Board
P.O. Sunder Nagar, Dangania, Raipur
Chhattisgarh – 492 013
8. Madhya Pradesh Audyogik Kendra
Vikas Nigam (Indore) Ltd.
3/54, Press Complex, Agra-Bombay Road,
Indore – 452 008

.....Respondents

The following were present:-

For Petitioner: Shri Piyush Awasthi, PGCIL
Shri A.M. Pavgi, PGCIL
Shri P.V. Nath, PGCIL
ShriMohd. Mohsin, PGCIL
Shri M.M. Mondal, PGCIL
Shri S.K. Venkatesan, PGCIL
Shri Rakesh Prasad, PGCIL
Smt.Sangeeta Edwards, PGCIL
Shri Subhash C. Taneja, PGCIL

For Respondent: None

ORDER

The present petition has been preferred by Power Grid Corporation of India Ltd. (“the petitioner”) for determination of transmission tariff for “Transmission System for Phase-I Generation Projects in Orissa-Part B” in Western



Region(hereinafter referred as “transmission asset”) under Regulation 6 of the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2009 (hereinafter referred to as “the 2009 Tariff Regulations”) based on actual capital expenditure for the tariff period 2009-14.

2. The respondents are electricity departments and distribution licensees,who are procuring transmission service from the petitioner, mainly beneficiaries of the Western Region.

3. The petitioner has served the petition to the respondents and notice of this application has been published in the newspapers in accordance with Section 64 of Electricity Act, 2003 (“the Act”). No comments have been received from the public in response to the notices published by the petitioner under Section 64 of the Act. The hearing in this matter was held on 27.1.2016. Maharashtra State Electricity Distribution Co. Ltd (MSEDCL), Respondent No.2has filed a reply vide affidavit dated 24.4.2014. The petitioner has submitted the rejoinder to the reply filed by the respondents vide affidavit dated3.3.2016.The petitioner was directed to file certain information vide letter dated 9.6.2014 and 21.1.2016. The petitioner has submitted the information vide affidavit dated 10.11.2014 and 1.3.2016 respectively. The concerns expressed by respondents are being addressed in the respective paras of this order. Having heard the representatives of the petitioner and perused the material on record, we proceed to dispose of the petition.

4. The brief facts of the case are as follows:-



(a) The investment approval for the project was accorded by Board of Directors of the petitioner vide Memorandum No. C/CP/ Orissa-I IPPs (Part-B) dated 15.12.2010, at an estimated cost of ₹274319 lakh, which included IDC of ₹18092 lakh (based on 3rd quarter 2010 price level). The date of commercial operation of Asset-A is 1.1.2014 and Asset-B is 1.3.2014. The approved apportioned cost of Asset-A is ₹779.22 lakh and Asset-B is ₹4638.74 lakh.

(b) The scope of work covered under the project is as follows:-

Transmission Lines:

- i) 765 kV D/C Dharamjaygarh-Jabalpur Pooling Station line
- ii) 765 kV D/C Jharsuguda Pooling Station- Dharamjaygarh line
- iii) LILO of 765 kV S/C Ranchi-WR Pooling near Sipat line at Dharamjaygarh
- iv) 400 kV D/C (Quad.) Jabalpur Pooling Station-Jabalpur line

Sub-stations:

- i) Jabalpur PS 765/400 kV new sub-station
- ii) Dharamjaygarh 765 kV new sub-station
- iii) Extension of 400 kV Jabalpur sub-station

(c) The petitioner had initially filed the instant petition on 27.2.2014, for determination of transmission tariff from COD to 31.3.2014 for **(1)** 400 kV 125 MVAR bus reactor -1 with associated bays at Jabalpur 765/400 kV PS **(2)** 400 kV 125 MVAR bus reactor-2 with associated bays at Jabalpur 765/400 kV PS **(3)** 765 kV 3x80 MVAR bus reactor-1 with associated bays at Jabalpur 765/400 kV pooling sub-station **(4)** 765 kV 3x80 +1x80(spare) MVAR bus reactor-2 with associated bays at Jabalpur PS, **(5)** 3x500 MVA, 765/400 kV ICT-2 +1x500 MVA spare unit at Jabalpur 765/400 kV PS,



(6) 6x80 MVAR 765 kV line reactor to be used as bus reactor at Jabalpur PS for Dharamjaygarh ckt#1 and ckt#2 (7) Loop in Portion along with associate bays at Dharamjaygarh Ranchi-Sipat line (8) 765 kV, 3x110 MVAR bus reactor-1 at Dharamjaygarh S/s along with associated bays (9) Loop out portion along with associated bays at Dharamjaygarh of Ranchi-Sipat line (10) 765 kV, 3x110 MVAR bus reactor-2 at Dharamjaygarh Substation along with associated bays under “transmission system for Phase-I generation projects in Orissa-Part B” in Western Region.

(d) The petitioner vide its affidavit dated 10.11.2014, has submitted that the Assets II, IV, V, VI, VII, VIII, IX and X are commissioned/anticipated to be commissioned after 1.4.2014. Accordingly, the petitioner has filed revised petition for these assets under Petition No. 244/TT/2014 and in Petition No. 409/TT/2014 in accordance with the 2014 Tariff Regulations. However, Asset-I and III have been commissioned during 2009-14 tariff period. Therefore, Asset-I and III have been considered in the instant petition. The petitioner vide affidavit dated 21.1.2016, has submitted that Asset-I and Asset-III are renamed as Asset-A and Asset-B respectively. The details are as follows:-

As filed in Petition	COD as filed in petition dated 27.2.2014	Assets as commissioned	COD status
Asset-I : 400 kV 125 MVAR bus reactor -1 with associated bays at Jabalpur 765/400 kV PS	1.1.2014 (Actual)	Asset-A : 400 kV 125 MVAR bus reactor -1 with associated bays at Jabalpur 765/400 kV PS	1.1.2014 (Actual)



As filed in Petition	COD as filed in petition dated 27.2.2014	Assets as commissioned	COD status
Asset-III: 765 kV 3x80 MVAR bus reactor-1 with associated bays at Jabalpur 765/400 kV Pooling sub-station	1.3.2014 (Anticipated)	Asset-B: 765 kV 3x80 MVAR bus reactor-1 with associated bays at Jabalpur 765/400 kV Pooling sub-station	1.3.2014 (Actual)

(e) The petitioner has claimed tariff for only 2009-14 tariff period, but submitted additional capitalization for 2014-19 tariff period. We are not considering the additional capitalization claimed for the 2014-19 tariff period. The issues regarding Asset-II and IV to X are not discussed in the current order and shall be considered in their respective orders.

(f) The petitioner submitted the CEA Energization Certificate, COD letters vide affidavit dated 1.3.2016 and SLD of the scheme vide affidavit dated 10.11.2014.

(g) The petitioner vide affidavit dated 10.11.2014 also submitted the progress of the generating stations for which the scheme was planned, their installed capacity and LTA.

5. The petitioner has claimed revised transmission charges vide affidavit dated 1.3.2016 as under:-

(₹ in lakh)

Particulars	2013-14 (Pro-rata)	
	Asset-A	Asset-B
Depreciation	7.77	6.99
Interest on Loan	8.64	8.45
Return on equity	8.65	7.79
Interest on Working Capital	1.45	0.94
O & M Expenses	16.37	7.64
Total	42.88	31.81



6. The details submitted by the petitioner in support of its claim for interest on working capital are given hereunder:-

Particulars	(₹ in lakh)	
	2013-14 (Pro-rata)	
	Asset-A	Asset-B
Maintenance Spares	9.82	13.75
O & M Expenses	5.46	7.64
Receivables	28.59	63.61
Total	43.87	85.00
Rate of Interest (%)	13.20	13.20
Interest	5.79	11.22
Pro-rata Interest	1.45	0.94

7. MSEDCL vide affidavit dated 24.4.2014, has submitted that Commission should carry out prudence check for various parameters as submitted by the petitioner to determine the transmission tariff. In response, the petitioner in its reply vide affidavit dated 3.3.2016 has submitted that tariff has been claimed as per the 2009 Tariff Regulations.

Capital Cost

8. Regulation 7(1) of the 2009 Tariff Regulations specifies as follows:-

“(1) Capital cost for a project shall include:-

(a) The expenditure incurred or projected to be incurred, including interest during construction and financing charges, any gain or loss on account of foreign exchange risk variation during construction on the loan – (i) being equal to 70% of the funds deployed, in the event of the actual equity in excess of 30% of the funds deployed, by treating the excess equity as normative loan, or (ii) being equal to the actual amount of loan in the event of the actual equity less than 30% of the fund deployed, up to the date of commercial operation of the project, as admitted by the Commission, after prudence check.

(b) capitalised initial spares subject to the ceiling rates specified in regulation 8; and

(c) additional capital expenditure determined under regulation 9:



Provided that the assets forming part of the project, but not in use shall be taken out of the capital cost.

(2) The capital cost admitted by the Commission after prudence check shall form the basis for determination of tariff:

Provided that in case of the thermal generating station and the transmission system, prudence check of capital cost may be carried out based on the benchmark norms to be specified by the Commission from time to time:

Provided further that in cases where benchmark norms have not been specified, prudence check may include scrutiny of the reasonableness of the capital expenditure, financing plan, interest during construction, use of efficient technology, cost over-run and time over-run, and such other matters as may be considered appropriate by the Commission for determination of tariff.”

Time Over-run

9. As per the investment approval dated 15.12.2010, the instant assets were scheduled to be commissioned within 36 months. Accordingly, the instant assets were scheduled to be commissioned on 15.12.2013 i.e. by 1.1.2014. The date of commercial operation of Asset-A and B was 1.1.2014 and 1.3.2014. There is no time over-run in case of Asset-A. There is time over-run of 2 months in case of Asset-B. The petitioner has submitted that time over-run of 2 months is due to delay in land acquisition. The petitioner has submitted the L2 Schedule for the asset depicting 2.5 months delay in handing over of land. The petitioner has submitted that the land was supposed to be handed over by 25.10.2011 however the same was handed over on 7.12.2011. We have gone through the submissions of the petitioner. We are of the view that the time over-run of two months in case of Asset-B was beyond the control of the petitioner. Accordingly, the time over-run of two months is condoned and IDC and IEDC for the said period is allowed to be capitalised.



IDC and IEDC

10. The petitioner vide affidavit dated 1.3.2016, has submitted that entire IEDC amount as in Auditor's Certificate is on cash basis and is paid upto COD for both the assets. As regards Asset-A, out of total IDC of ₹27.12 lakh, ₹14.87 lakh has been discharged upto COD. The balance IDC of ₹0.61 lakh has been discharged in 2013-14 and ₹11.64 lakh in 2014-15. In case of Asset-B, out of the total IDC of ₹33.63 lakh, ₹28.23 lakh has been discharged upto COD. The balance IDC of ₹1.48 lakh has been discharged in 2013-14 and ₹3.92 lakh in 2014-15.

11. The petitioner has further submitted that, accrued IDC discharged during 2013-14 and 2014-15 has not been included in the additional capitalization for respective years as per Auditor's certificate. The detailed break up of IDC and IEDC capitalized among the assets are as follows:-

(₹ in lakh)

Asset-No	COD	IDC as per Certificate	IDC discharged up to COD	IDC discharged in 2013-14	IDC discharged in 2014-15
Asset-A	1.1.2014	27.12	14.87	0.61	11.64
Asset-B	1.3.2014	33.63	28.23	1.48	3.92
Total		60.75	43.10	2.09	15.56

12. We have considered the submissions of the petitioner. It is observed that the petitioner has claimed the IDC amount discharged as on COD and balance IDC as to be discharged in 2013-14 and 2014-15 as a part of the capital cost as on COD. The petitioner has however claimed tariff only for 2009-14 tariff period. Hence, based on the submissions of the petitioner, for Asset-A, IDC discharged



upto COD on cash basis i.e. ₹14.87 lakhs considered in the capital cost as on COD for the asset and IDC discharged in 2013-14 i.e. ₹0.61 lakh is considered in the additional capitalization for the 2013-14 tariff period. In case of Asset-B, IDC discharged upto COD on cash basis i.e. ₹28.23 lakh is considered in the capital cost as on COD and IDC discharged in 2013-14 i.e. ₹1.48 lakh is considered in the additional capitalization for the 2013-14 tariff period. The IDC approved for the instant assets for the 2009-14 tariff period is as follows:-

(₹ in lakh)			
Asset-No	IDC discharged upto COD	IDC discharged in 2013-14	Total IDC considered till 31.3.2014
Asset-A	14.87	0.61	15.48
Asset-B	28.23	1.48	29.71
Total	43.10	2.09	45.19

Initial Spares

13. The petitioner has claimed initial spares of ₹19.05 lakh and ₹74.95 lakh Assets-A and B.

14. Regulation 8 of the 2009 Tariff Regulations provides that initial spares shall be capitalised as a percentage of the original project cost, subject to following ceiling norms:-

“Transmission line:	0.75%
Transmission sub-station	2.50%
Series compensation devices & HVDC Station:	3.50%”

15. The initial spares have been worked out by considering the capital cost as on COD and additional capital expenditure upto 31.3.2014, as in the instant



petition tariff has been allowed only for the 2009-14 tariff period. The initial spares claimed and allowed for the instant assets are shown in the table given below:-

(₹ in lakh)

Description	Capital cost as on 31.3.2014	Initial spares claimed	Ceiling limits as per Regulation 8 of the 2009 Tariff Regulation	Initial spares worked out and allowed	Excess initial spares claimed
	(a)	(b)	(c)	(d)=*((a-b)*c)/(100-c)%	(e)=(d)-(b)
Asset-A	606.25	19.05	2.50%	15.06	3.99
Asset-B	1617.65	74.95	2.50%	39.56	35.39

16. The capital cost of the assets has been considered after adjustment of IDC and excess initial spares. The initial spares in this order are considered upto 31.3.2014. The initial spares up to cut-off date shall be considered at the time of truing up of the tariff of the 2009-14 tariff period.

17. The petitioner vide affidavit dated 1.3.2016 has submitted revised capital expenditure of ₹582.92lakh and ₹1569.65 lakh as on COD for Asset-A and Asset-B respectively as per Auditor's certificate. In addition to this, the petitioner has claimed revised additional capitalization of ₹34.97 lakh, ₹48.00 lakh for Asset-A and Asset-B respectively during 2013-14 as per Auditor's certificate dated 25.1.2016 certifying the capital cost of the asset. The petitioner has however considered IDC discharged on cash basis and claimed capital cost



as on COD of ₹570.67 lakh, ₹1564.25 lakh for Asset-A and Asset-B respectively for tariff calculation for the 2009-14 tariff period.

18. The petitioner has submitted the details of element wise actual capital expenditure up to 31.3.2014. The capital cost submitted as per Auditor's Certificate is as follows:-

(₹ in lakh)		
Asset	Approved apportioned cost	Expenditure up to COD
Asset-A	779.22	582.92
Asset-B	4638.74	1569.65
Total	5417.96	2152.57

19. The petitioner has considered the capital cost as on COD after adjusting IDC as follows:-

(₹ in lakh)	
Asset	Expenditure up to COD claimed
Asset-A	570.67
Asset-B	1564.25
Total	2134.92

20. The petitioner was directed vide letter dated 9.6.2014 to submit the reasons for not furnishing date of completion in Form-5C. In response, the petitioner vide affidavit dated 10.11.2014 has submitted that the instant petition was filed on the basis of the anticipated COD of the assets except for Asset-I, which was commissioned on 1.1.2014. Revised Form-5C in case of Asset-I and III have been submitted. The petitioner was also directed to submit the reason for considering high cost estimates in compensating equipment at the time of



Feasibility Report. In response, the petitioner vide affidavit dated 10.11.2014 has submitted that cost estimates are prepared by the petitioner as per well-defined procedures of cost estimates. The cost estimate is broad indicative cost worked out generally on basis of average unit rates of recently awarded contracts. The petitioner submitted that, for procurement, open competitive bidding route is followed and by providing equal opportunity to all eligible firms, lowest possible market prices for required product/services is obtained and contracts are awarded on basis of lowest evaluated eligible bidder. The best competitive bid prices against tenders may tend to be lower or higher than the cost estimate depending upon prevailing market conditions. Further, regarding 765 kV equipment it is to mention that because of new technology there are very few manufacturers of 765 kV transformers and reactors. The estimated rates considered in FR were based on the limited inputs available on these equipments which were very high. However, later as the suppliers of the said equipment increased in the market owing to dissemination of technology which resulted in reduction in competitive cost. Hence, the petitioner submitted that, in view of the above said factors the cost of 765 kV transformers and reactors received through bids was lesser than the FR cost.

21. The petitioner was directed vide affidavit dated 9.6.2014 to submit the usage of the assets in terms of other assets in the sub-station i.e. which lines are commissioned and power flow both in Jabalpur Sub-station and Dharamjaygarh Sub-station. In response, vide affidavit dated 10.11.2014, the petitioner has



submitted that the following lines are commissioned at 765/400 kV Jabalpur (pooling station):

- 400 kV Jabalpur- Jabalpur (pooling station)#1 on 30.12.2013.
- 400 kV Jabalpur- Jabalpur (pooling station)#2 on 30.12.2013.
- 765 kV Jabalpur pooling station- Bina #2 on 30.12.2013 (Transmission System under Orissa-C).
- 765 kV Jabalpur pooling station- Bina #1 on 31.12.2013 (Transmission System under Orissa-C).
- The petitioner submitted that, the average power flow on the above lines at 765/400 kV Jabalpur (pooling station) in case of 400 kV Jabalpur- Jabalpur pooling station D/C line and 400 kV Jabalpur pooling station- Bina D/C line is 460 MW.

22. The petitioner vide letter dated 10.11.2014 has submitted the data for capital cost benchmarking in accordance with Commission's order dated 27.4.2010 and 16.6.2010.

23. We have considered the submissions of the petitioner. Taking into consideration the IDC on cash basis and adjusting initial spares, we have determined the capital cost of the assets as on COD as ₹566.68 lakh and ₹1528.86 lakh for Asset-A and Asset-B respectively. The details are as follows:-

(₹ in lakh)	
Asset	Expenditure up to COD allowed
Asset-A	566.68
Asset-B	1528.86
Total	2095.53



Additional Capital Expenditure

24. The petitioner vide affidavit dated 1.3.2016 has claimed capital cost as on COD for Asset-A as ₹570.67 lakh and additional capitalization of ₹35.58 lakh (after adjustment of IDC) in 2013-14. For, Asset-B, the petitioner has claimed capital cost as on COD is ₹1564.25 lakh and additional capitalization of ₹49.48 lakh (after adjustment of IDC) in 2013-14 under Regulation 9(1) of the 2009 Tariff Regulations. The petitioner has submitted that the additional capital expenditure is on account of balance and retention payments for works executed within cut-off date.

25. Clause 9(1) of the 2009 Tariff Regulations provides as under:-

“Additional Capitalisation: (1) The capital expenditure incurred or projected to be incurred, on the following counts within the original scope of work, after the date of commercial operation and up to the cut-off date may be admitted by the Commission, subject to prudence check:

- (i) Undischarged liabilities;
- (ii) Works deferred for execution;
- (iii) Procurement of initial capital Spares within the original scope of work, subject to the provisions of Regulation 8;
- (iv) Liabilities to meet award of arbitration or for compliance of the order or decree of a court; and
- (v) Change in Law.”

26. MSEDCL has requested to conduct the prudence check on the claims made by the petitioner as provided in the 2009 Tariff Regulations. In response, the petitioner vide affidavit dated 3.3.2016 has submitted that revised estimated completion cost has been submitted vide affidavit dated 1.3.2016 wherein additional capitalization has been shown upto 2015-16. The petitioner further requested to approve the tariff based on revised estimates.



27. The petitioner was directed to submit the asset wise amount of balance and retention payments yet to be made along with details of the contract for which payment has been retained alongwith amount retained. In response, the petitioner vide affidavit dated 28.1.2016 has submitted the contractor wise details for which payment has been made and submitted that estimated balance and retention amount of ₹27.38 lakh and ₹420.46 lakh in case of Asset-A and Asset-B respectively is pending in 2015-16.

28. We have considered the submissions of the petitioner. It is observed that the petitioner has claimed tariff for the 2009-14 tariff period only, but has also included the estimated additional capitalization for the 2014-19 tariff period while computing the completion cost. We have considered the estimated completion cost only up to 31.3.2014. Further, after considering the IDC on cash basis and adjusting excess initial spares we have determined the capital cost of the assets as on COD as ₹566.68 lakh, ₹1528.86 lakh for Asset-A and Asset-B respectively. The total completion cost of the assets as on 31.3.2014 including additional capitalisation during 2013-14 is ₹602.26 lakh and ₹1578.34 lakh which is within the approved apportioned cost of the assets. Hence, the same is considered for 2009-14 tariff period. The additional capitalization for the 2014-19 tariff period is not considered in this order. The capital cost and additional capitalisation allowed is as under:-



(₹ in lakh)

Particulars	Asset	Approved apportioned cost	Expenditure up to COD	Actual additional capitalization for 2013-14	Total capital cost claimed
As claimed by Petitioner	Asset-A	779.22	570.67	35.58	606.25
	Asset-B	4638.74	1564.25	49.48	1613.73
	Total	5417.96	2134.92	85.06	2219.98
As Approved	Asset-A	779.22	566.68	35.58	602.26
	Asset-B	4638.74	1528.86	49.48	1578.34
	Total	5417.96	2095.53	85.06	2180.59

Debt:EquityRatio

29. Regulation 12 of the 2009 Tariff Regulations provides as under:-

“12. **Debt-Equity Ratio.** (1) For a project declared under commercial operation on or after 1.4.2009, if the equity actually deployed is more than 30% of the capital cost, equity in excess of 30% shall be treated as normative loan:

Provided that where equity actually deployed is less than 30% of the capital cost, the actual equity shall be considered for determination of tariff:

Provided further that the equity invested in foreign currency shall be designated in Indian rupees on the date of each investment.

Explanation.-The premium, if any, raised by the generating company or the transmission licensee, as the case may be, while issuing share capital and investment of internal resources created out of its free reserve, for the funding of the project, shall be reckoned as paid up capital for the purpose of computing return on equity, provided such premium amount and internal resources are actually utilised for meeting the capital expenditure of the generating station or the transmission system.

(2) In case of the generating station and the transmission system declared under commercial operation prior to 1.4.2009, debt-equity ratio allowed by the Commission for determination of tariff for the period ending 31.3.2009 shall be considered.

(3) Any expenditure incurred or projected to be incurred on or after 1.4.2009 as may be admitted by the Commission as additional capital expenditure for determination of tariff, and renovation and modernisation expenditure for life extension shall be serviced in the manner specified in clause (1) of this regulation.”



30. The petitioner was directed to submit clarification regarding the 30% notional equity considered for additional capitalization and also to submit an undertaking that the actual equity has been infused for the works carried out as on COD and additional capitalization carried out in tariff period 2009-14. In response, the petitioner has submitted that the actual loan deployed in Form-13 is 70% of additional capitalization for all the assets covered in the petition. Further, as per Clause 12(1) and 12(3) of the 2009 Tariff Regulations, equity in excess of 30% shall be treated as loan. Accordingly, transmission charges have been claimed as per normative Debt: Equity ratio of 70:30 as per provisions of the 2009 Tariff Regulations.

31. The details of the debt: equity considered for the purpose of tariff for the 2009-14 tariff period is as follows:-

(₹ in lakh)

Asset-A	Capital Cost as on COD		Completion cost including additional Capitalization	
	Amount	(%)	Amount	(%)
Debt	396.67	70.00	421.58	70.00
Equity	170.00	30.00	180.68	30.00
Total	566.68	100.00	602.26	100.00
Asset-B				
Debt	1070.20	70.00	1104.84	70.00
Equity	458.66	30.00	473.50	30.00
Total	1528.86	100.00	1578.34	100.00

Interest on Loan (“IOL”)

32. Regulation 16 of the 2009 Tariff Regulations provides the methodology for working out weighted average rate of interest on loan.



33. The petitioner has submitted the weighted average rate of interest on loan based on its actual loan portfolio and rate of interest.

34. MSEDCL has submitted that prudence check should be conducted on the loans availed by the petitioner and the average interest rate considered for calculation of interest on long term loans. In response, the petitioner vide affidavit dated 3.3.2016 has submitted that at the time of filing the petition, interest on loan was claimed on the basis of rate prevailing as on 1.4.2013. Further, interest on loans varies yearly which may happen to be higher or lower than the rate at which tariff is claimed. Transmission tariff based on the actual rate of interest can be computed only at the end of the year and the trued up petition for the same can be filed only once in every tariff period as per the prevalent Regulations and the same is claimed from the respondents by adjusting the revised tariff with the already claimed tariff.

35. We have considered the submissions of the petitioner. IOL based on actual interest rate submitted by the petitioner is allowed in accordance with Regulation 16 of the 2009 Tariff Regulations as given below:-

Particulars	(₹ in lakh)	
	2013-14 (Pro-rata)	
	Asset-A	Asset-B
Gross Normative Loan	396.67	1070.20
Cumulative Repayment upto Previous Year	0.00	0.00
Net Loan-Opening	396.67	1070.20
Additions	24.91	34.64
Repayment during the year	7.71	6.84
Net Loan-Closing	413.86	1098.00
Average Loan	405.27	1084.10



Particulars	2013-14 (Pro-rata)	
	Asset-A	Asset-B
Weighted Average Rate of Interest on Loan (%)	8.4617	9.1424
Interest	8.57	8.26

Return on Equity(“ROE”)

36. Clause (3), (4) and (5) of Regulation 15 of the 2009 Tariff Regulations provide that:-

“(3) The rate of return on equity shall be computed by grossing up the base rate with the Minimum Alternate/Corporate Income Tax Rate for the year 2008-09, as per the Income Tax Act, 1961, as applicable to the concerned generating company or the transmission licensee, as the case may be.

(4) Rate of return on equity shall be rounded off to three decimal points and be computed as per the formula given below:

$$\text{Rate of pre-tax return on equity} = \text{Base rate} / (1-t)$$

Where “t” is the applicable tax rate in accordance with clause (3) of this regulation.

(5) The generating company or the transmission licensee, as the case maybe, shall recover the shortfall or refund the excess Annual Fixed Charge on account of Return on Equity due to change in applicable Minimum Alternate/Corporate Income Tax Rate as per the Income Tax Act, 1961 (as amended from time to time) of the respective financial year directly without making any application before the Commission:

Provided further that Annual Fixed Charge with respect to the tax rate applicable to the generating company or the transmission licensee, as the case may be, in line with the provisions of the relevant Finance Acts of the respective year during the tariff period shall be trued up in accordance with Regulation 6 of these regulations.”

37. MSEDCL has submitted that the Commission may pass order as it thinks just and proper in order to avoid unnecessary burden on beneficiaries and ultimately on end consumers. In response, the petitioner has submitted that ROE has been claimed by grossing up with MAT rate for 2008-09 as provided in the



2009 Tariff Regulations. We have considered the submissions made by the petitioner and MSEDCL, the petitioner is allowed to recover the shortfall or refund the excess Annual Fixed Charges, on account of Return on Equity due to change in applicable Minimum Alternate/Corporate Income Tax rate as per the Income Tax Act, 1961 (as amended from time to time) of the respective financial year directly without making any application before the Commission.

38. The petitioner submitted the MAT rate applicable for 2013-14 and the grossed up ROE. They are given in the table below:-

Particulars	MAT Rate (t) %	Grossed up ROE (Base rate/(1-t)) %
2013-14	20.961	19.610

39. The ROE allowed in accordance with the provisions of the 2009 Tariff Regulations is as given under:-

(₹ in lakh)

Particulars	2013-14 (Pro-rata)	
	Asset-A	Asset-B
Opening Equity	170.00	458.66
Additions	10.67	14.84
Closing Equity	180.68	473.50
Average Equity	175.34	466.079
Return on Equity (Base Rate) (%)	15.500	15.500
MAT rate for the respective year (%)	20.961	20.961
Rate of Return on Equity (Pre Tax) (%)	19.610	19.610
Return on Equity (Pre Tax)	8.60	7.62



Depreciation

40. Clause (42) of Regulation 3 of the 2009 Tariff Regulations defines useful life as follows:-

“**useful life**’ in relation to a unit of a generating station and transmission system from the COD shall mean the following, namely:-

.....

(c) AC and DC sub-station	25 years
(d) Hydro generating station	35 years
(e) Transmission line	35 years”

41. Clause (4) of Regulation 17 of the 2009 Tariff Regulations provides as follows:-

"17. Depreciation:

...

(4) Depreciation shall be calculated annually based on Straight Line Method and at rates specified in Appendix-III to these regulations for the assets of the generating station and transmission system:

Provided that, the remaining depreciable value as on 31st March of the year closing after a period of 12 years from date of commercial operation shall be spread over the balance useful life of the assets.”

42. The weighted average useful life of the transmission asset has been considered as per Regulations 3(42) and 17(4) of the 2009 Tariff Regulations. For the purpose of calculation, the weighted average useful life of the asset has been considered as 25 years for the said asset. The depreciation for the tariff period 2009-14 has been worked out in accordance with Regulation 17 of the 2009 Tariff Regulations based on admitted capital expenditure as under:-

Particulars	(₹ in lakh)	
	2013-14 (Pro-rata)	
	Asset-A	Asset-B
Opening Gross Block	566.68	1528.86
Additional Capitalization	35.58	49.48
Closing Gross block	602.26	1578.34



Particulars	2013-14 (Pro-rata)	
	Asset-A	Asset-B
Average Gross block	584.47	1553.60
Rate of Depreciation (%)	5.280	5.280
Depreciable Value	526.02	1398.24
Elapsed Life of the assets at beginning of the year	0	0
Weighted Balance Useful life of the assets	25	25
Remaining Depreciable Value	526.02	1398.24
Depreciation	7.71	6.84

Operation & Maintenance Expenses (“O&M Expenses”)

43. Clause (g) of Regulation 19 of the 2009 Tariff Regulations specifies norms for O&M Expenses for transmission system based on type of Sub-stations and the transmission line. Norms specified in respect of O&M Expenses for transmission asset covered in the instant petition are as hereinafter:-

		(₹ in lakh)
Particulars		2013-14 (pro-rata)
Norms as per Regulation	Asset-A - 400 kV (₹ lakh/bay)	65.46
	Asset-B- 765 kV (₹ lakh/bay)	91.64
No of Bays	Asset A (Nos.)	1
	Asset B (Nos.)	1
Total	Asset A (₹in lakh)	16.37
	Asset B (₹in lakh)	7.64

44. The petitioner has submitted that norms for O&M Expenses for the year 2009-14 had been arrived at on the basis of normalized actual O&M Expenses during the period 2003-04 to 2007-08 and by escalating it by 5.72% per annum for arriving at norms for the years of tariff period. The wage hike of 50% on account of pay revision of the employees of public sector undertaking has also



been considered while calculating the O&M Expenses for the tariff period 2009-14. The petitioner has further submitted that it may approach the Commission for suitable revision in norms for O&M Expenses due to impact of wage revision.

45. The petitioner has also submitted that the claim for transmission tariff is exclusive of any statutory taxes, levies, duties, cess or any other kind of impositions, etc. Such kinds of payments are generally included in the O&M Expenses. While specifying the norms for the O&M Expenses, the Commission has in the 2009 Tariff Regulations, given effect to impact of pay revision by factoring 50% on account of pay revision of the employees of PSUs. In this order, we have allowed O&M Expenses as per the existing norms.

46. The details of O&M Expenses allowed are given hereunder:-

(₹ in lakh)

Particulars	2013-14 (Pro rata)	
	Asset-A	Asset-B
O&M Expenses Allowed	16.37	7.64

Interest on Working Capital (“IWC”)

47. Sub-clause (c) of Clause (1) of Regulation 18 of the 2009 Tariff Regulations provides the components of the working capital for the transmission system and Clause (3) of Regulation 18 of the 2009 Tariff Regulations provides for the rate of interest of working capital.

48. The petitioner has submitted that the rate of interest on working capital has been considered as 13.20% as per Clause (3) of Regulation 18 of the 2009



Tariff Regulations and the components of working capital are also considered in accordance with Sub-clause (c) of Clause (1) of Regulation 18 of the 2009 Regulations.

49. In accordance with Clause (3) of Regulation 18 of the 2009 Tariff Regulations, rate of interest on working capital shall be on normative basis and in case of transmission assets declared under commercial operation after 1.7.2010 shall be equal to SBI Base Rate plus 350 basis points as on 1st April of the year in which the transmission asset was declared under commercial operation. State Bank of India base Bate as on 1.4.2013 was 9.70%. Therefore, interest rate of 13.20% has been considered to work out the interest on working capital in the instant case.

50. Computations in support of interest on working capital allowed are as follows:-

Particulars	(₹ in lakh)	
	2013-14 (Pro rata)	
	Asset-A	Asset-B
Maintenance Spares	2.45	1.15
O & M expenses	1.36	0.64
Receivables	7.12	5.21
Total	10.93	6.99
Rate of Interest (%)	13.20	13.20
Interest	1.44	0.92



Annual Transmission Charges

51. The detailed computation of the various components of the annual fixed charges for the transmission asset for the tariff period 2009-14 is summarised below:-

Particulars	(₹ in lakh)	
	2013-14 (Pro-rata)	
	Asset-A	Asset-B
Gross Block		
Opening Gross Block	566.68	1528.86
Additional Capitalization	35.58	49.48
Closing Gross block	602.26	1578.34
Average Gross block	584.47	1553.60
Depreciation		
Rate of Depreciation (%)	5.280	5.280
Depreciable Value	526.02	1398.24
Elapsed Life of the assets at beginning of the year	0	0
Weighted Balance Useful life of the assets	25	25
Remaining Depreciable Value	526.02	1398.24
Depreciation	7.71	6.84
Interest on Loan		
Gross Normative Loan	396.67	1070.20
Cumulative Repayment upto Previous Year	0.00	0.00
Net Loan-Opening	396.67	1070.20
Additions	24.91	34.64
Repayment during the year	7.71	6.84
Net Loan-Closing	413.86	1098.00
Average Loan	405.27	1084.10
Weighted Average Rate of Interest on Loan (%)	8.4617	9.1424
Interest	8.57	8.26



Particulars	2013-14 (Pro-rata)	
	Asset-A	Asset-B
Return on Equity		
Opening Equity	170.00	458.66
Additions	10.67	14.84
Closing Equity	180.68	473.50
Average Equity	175.34	466.08
Return on Equity (Base Rate) (%)	15.50	15.50
MAT rate for the respective year (%)	20.961	20.961
Rate of Return on Equity (Pre Tax) (%)	19.610	19.610
Return on Equity (Pre Tax)	8.60	7.62
Interest on Working Capital		
Maintenance Spares	2.45	1.15
O & M Expenses	1.36	0.64
Receivables	7.12	5.21
Total	10.93	6.99
Interest	1.44	0.92
Annual Transmission Charges		
Depreciation	7.71	6.84
Interest on Loan	8.57	8.26
Return on Equity	8.60	7.62
Interest on Working Capital	1.44	0.92
O & M Expenses	16.37	7.64
Total	42.69	31.27

Filing Fee and the Publication Expenses

52. The petitioner has sought reimbursement of fee paid by it for filing the petition and publication expenses, in terms of Regulation 42 of the 2009 Tariff Regulations. MSEDCL has submitted that the reimbursement of expenditure towards petition filing fees and other expenditure (if any) in relation to filing of Petitions should be dealt as per order dated 11.9.2008 in Petition No.129/2005.



MSEDCL has submitted that the petitioner's prayer should be rejected. In response, the petitioner vide affidavit dated 3.3.2016, has submitted that the filing fee is claimed under Regulation 42 of the 2009 Tariff Regulations and hence should be reimbursed to the petitioner.

53. We have considered the submissions of the petitioner and MSEDCL. The petitioner shall be entitled for reimbursement of the filing fees and publication expenses in connection with the present petition, directly from the beneficiaries on pro-rata basis in accordance with Regulation 42 of the 2009 Tariff Regulations.

Licence Fee

54. The petitioner has requested to allow the petitioner to bill and recover licence fee separately from the respondents. MSEDCL has submitted that the petitioner should submit the provision under which the licensee fee from the respondents is being recovered. In response, the petitioner has submitted that license fee has been a new component of cost to the transmission licensee under O&M stage of the project and has become incidental to the petitioner/CTU only from 2008-09. It is therefore submitted that License fee shall be recovered separately from the beneficiaries under Regulation 42A (1) (b) of the 2009 Tariff Regulations.

55. The petitioner shall be entitled for reimbursement of licence fee in accordance with Clause (1)(b) of Regulation 42A of the 2009 Tariff Regulations.



Service Tax

56. The petitioner has sought to recover Service Tax on Transmission Charges separately from the respondents, if at any time service tax on transmission is withdrawn from negative list in future. We are of the view that the petitioner's prayer is premature.

Sharing of Transmission Charges

57. The billing, collection and disbursement of the transmission charges approved shall be governed by the provisions of Central Electricity Regulatory Commission (Sharing of Inter-State Transmission Charges and Losses) Regulations, 2010, as amended from time to time.

58. This order disposes of Petition No. 48/TT/2014.

Sd/-
(Dr. M. K. Iyer)
Member

Sd/-
(A.S. Bakshi)
Member



DETAILS OF LOAN BASED ON ACTUAL LOAN PORTFOLIO

(₹ in lakh)

Asset-I	Interest Rate (%)	Loan deployed as on 1.10.2013	Additions during the tariff period	Total
BOND XXXIV-DOCO-	8.84	40.00	0.00	40.00
BOND XXXVII-DOCO-	9.25	2.00	0.00	2.00
BOND XXXVIII-DOCO-	9.25	1.00	0.00	1.00
BOND XXXIX-DOCO-	9.40	2.00	0.00	2.00
SBI (21.3.2012)-DOCO-	10.25	13.00	0.00	13.00
BOND - XL-DOCO-	9.30	6.00	0.00	6.00
IFC(IFC- A LOAN) (31419-00)-doco-62.41	3.29	2.00	0.00	2.00
IFC(IFC- B LOAN) (31419-01)-DOCO-62.41	2.44	4.99	0.00	4.99
IFC (ICFF LOAN) (31419-02)-DOCO-62.41	2.44	4.99	0.00	4.99
FC BOND(17.01.2013)-DOCO-62.41	4.10	14.98	0.00	14.98
BOND-XLIV-ADD CAP FOR 2013-14 Add Cap-2-	8.70	0.00	0.43	0.43
BOND-XLIV-DOCO-	8.70	308.51	0.00	308.51
BOND-XLV-ADD CAP FOR 2013-2014 Add Cap 1-	9.65	0.00	24.48	24.48
Total		399.47	24.91	424.38

Asset-II	Interest Rate (%)	Loan deployed as on 1.10.2013	Additions during the tariff period	Total
BOND XXXIV-DOCO-	8.84	40.00	0.00	40.00
BOND XXXVII-DOCO-	9.25	5.00	0.00	5.00
BOND XXXVIII-DOCO-	9.25	1.00	0.00	1.00
BOND XXXIX-DOCO-	9.40	10.00	0.00	10.00
SBI (21.3.2012)-DOCO-	10.25	40.00	0.00	40.00
BOND - XL-DOCO-	9.30	50.00	0.00	50.00
IFC(IFC- A LOAN) (31419-00)-doco-62.41	3.29	6.01	0.00	6.01
IFC(IFC- B LOAN) (31419-01)-DOCO-62.41	2.44	25.12	0.00	25.12
IFC (ICFF LOAN) (31419-02)-DOCO-62.41	3.29	10.02	0.00	10.02
BOND-XLIII-Loan 11-	4.10	45.17	0.00	45.17



FC BOND(17.01.2013)-DOCO-62.41	9.65	0.00	34.64	34.64
BOND-XLIV-Loan 5-	9.65	862.64	0.00	862.64
				0.00
Total		1094.96	34.64	1129.60

CALCULATION OF WEIGHTED AVERAGE RATE OF INTEREST ON LOAN FOR TARIFF PERIOD 2013-14

Particulars	(₹ in lakh)	
	Asset-I	Asset-II
Gross Opening Loan	399.47	1094.96
Cumulative Repayments of Loans upto Previous Year	0.00	0.00
Net Loans Opening	399.47	1094.96
Add: Drawl(s) during the year	24.91	34.64
Less: Repayment(s) of Loan during the year	0.00	0.00
Net Closing Loan	424.38	1129.60
Average Net Loan	411.93	1112.28
Rate of Interest on Loan (%)	8.4617	9.1424
Interest on Loan	34.86	101.69

